

WHAT IS CLAIMED IS:

1. A method for enhancing the quality of sleep in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

2. A method for augmenting sleep maintenance in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

3. A method for increasing REM sleep in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

4. A method for increasing stage 2 sleep in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

5. A method for decreasing fragmentation of sleep patterns in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

6. A method for treating insomnia in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

7. A method for enhancing cognition in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

8. A method for increasing memory retention in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

9. A method for treating or controlling depression in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

5 10. A method for treating, controlling, ameliorating or reducing the risk of migraine in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

10 11. A method for treating or controlling neuropathic pain in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

15 12. A method for treating, controlling, ameliorating or reducing the risk of Parkinson's disease in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

20 13. A method for treating or controlling psychosis in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

14. A method for treating, controlling, ameliorating or reducing the risk of schizophrenia in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a T-type calcium channel antagonist.

25 15. The method of any one of Claims 1-14 wherein the T-type calcium channel antagonist is a CNS-penetrant T-type calcium channel antagonist.

30 16. The method of any one of Claims 1-15 wherein the T-type calcium channel antagonist is an selective T-type calcium channel antagonist.

17. The method of any one of Claims 1-16 wherein the T-type calcium channel antagonist possesses a selectivity for the T-type calcium channel relative to the L-type calcium channel of at least 5 fold as measured by the ratio of IC₅₀ for the T-type calcium channel to the IC₅₀ for the L-type calcium channel as evaluated by the voltage-clamp assay.

18. The method of any one of Claims 1-16 wherein the T-type calcium channel antagonist possesses a selectivity for the T-type calcium channel relative to the L-type calcium channel of at least 10 fold as measured by the ratio of IC₅₀ for the T-type calcium channel to the IC₅₀ for the L-type calcium channel as evaluated by the voltage-clamp assay.
19. The method of any one of Claims 1-16 wherein the T-type calcium channel antagonist possesses a selectivity for the T-type calcium channel relative to the L-type calcium channel of at least 50 fold as measured by the ratio of IC₅₀ for the T-type calcium channel to the IC₅₀ for the L-type calcium channel as evaluated by the voltage-clamp assay.
20. The method of any one of Claims 1-16 wherein the T-type calcium channel antagonist possesses a selectivity for the T-type calcium channel relative to the L-type calcium channel of at least 100 fold as measured by the ratio of IC₅₀ for the T-type calcium channel to the IC₅₀ for the L-type calcium channel as evaluated by the voltage-clamp assay.
21. The method of any one of Claims 1-16 wherein the T-type calcium channel antagonist possesses a selectivity for the T-type calcium channel relative to the L-type calcium channel of at least 200 fold as measured by the ratio of IC₅₀ for the T-type calcium channel to the IC₅₀ for the L-type calcium channel as evaluated by the voltage-clamp assay.
22. The method of any one of Claims 1-16 wherein the T-type calcium channel antagonist possesses a selectivity for the T-type calcium channel relative to the L-type calcium channel of at least 500 fold as measured by the ratio of IC₅₀ for the T-type calcium channel to the IC₅₀ for the L-type calcium channel as evaluated by the voltage-clamp assay.
23. The method of any one of Claims 1-22 wherein the T-type calcium channel antagonist possesses a selectivity for the α 1G subtype T-type calcium channel relative to the α 1H subtype and/or α 1I subtype T-type calcium channel of at least 10 fold as measured by the ratio of IC₅₀ for the α 1G subtype T-type calcium channel to the IC₅₀ for the α 1H subtype and/or α 1I subtype T-type calcium channel as evaluated by the voltage-clamp assay.
24. The method of any one of Claims 1-22 wherein the T-type calcium channel antagonist possesses a selectivity for the α 1H subtype T-type calcium channel

relative to the $\alpha 1G$ subtype and/or $\alpha 1I$ subtype T-type calcium channel of at least 10 fold as measured by the ratio of IC_{50} for the $\alpha 1H$ subtype T-type calcium channel to the IC_{50} for the $\alpha 1G$ subtype and/or $\alpha 1I$ subtype T-type calcium channel as evaluated by the voltage-clamp assay.

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25. The method of any one of Claims 1-22 wherein the T-type calcium channel antagonist possesses a selectivity for the $\alpha 1I$ subtype T-type calcium channel relative to the $\alpha 1G$ subtype and/or $\alpha 1H$ subtype T-type calcium channel of at least 10 fold as measured by the ratio of IC_{50} for the $\alpha 1I$ subtype T-type calcium channel to the IC_{50} for the $\alpha 1G$ subtype and/or $\alpha 1H$ subtype T-type calcium channel as evaluated by the voltage-clamp assay.

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26. The method of any one of Claims 1-25 wherein the T-type calcium channel antagonist possesses an IC_{50} for binding to the T-type calcium channel of 1 μM or less as evaluated by the T-type calcium channel antagonist voltage-clamp assay.

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27. The method of any one of Claims 1-25 wherein the T-type calcium channel antagonist possesses an IC_{50} for binding to the T-type calcium channel of 500 nM or less as evaluated by the T-type calcium channel antagonist voltage-clamp assay.

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28. The method of any one of Claims 1-25 wherein the T-type calcium channel antagonist possesses an IC_{50} for binding to the T-type calcium channel of 100 nM or less as evaluated by the T-type calcium channel antagonist voltage-clamp assay.

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29. The method of any one of Claims 1-25 wherein the T-type calcium channel antagonist possesses an IC_{50} for binding to the T-type calcium channel of 50 nM or less as evaluated by the T-type calcium channel antagonist voltage-clamp assay.

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30. The method of any one of Claims 1-25 wherein the T-type calcium channel antagonist possesses an IC_{50} for binding to the T-type calcium channel of 1 nM or less as evaluated by the T-type calcium channel antagonist voltage-clamp assay.

31. The method of any one of Claims 1-30 wherein the T-type calcium channel antagonist is an orally active T-type calcium channel antagonist.

32. The method of any one of Claims 1-31 wherein the T-type calcium channel antagonist is orally administered.

5 33. The method of any one of Claims 1-30 wherein the T-type calcium channel antagonist is a non-peptidal T-type calcium channel antagonist.

34. The method of any one of Claim 1-33 wherein the patient is a human.

10 35. The method of any one of Claim 1-34 wherein the patient is an elderly human.